

Development and Evaluation of Alternatives

Identifying and studying alternatives to a proposal is the key to the NEPA process' objective of finding transportation solutions that help preserve and protect the value of environmental and community resources.

Evaluation of alternatives should present the proposed action and all the alternatives in comparative form, to define the issues and provide a clear basis for choice among the options. In its regulations implementing NEPA, the Council on Environmental Quality (CEQ) calls the alternatives analysis section the "heart of the EIS," and require that agencies shall:

- (a) Rigorously explore and objectively evaluate all reasonable alternatives and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.
- (b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.
- (c) Include reasonable alternatives not within the jurisdiction of the lead agency.
- (d) Include the alternative of no action.
- (e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.
- (f) Include appropriate mitigation measures not already included in the proposed action or alternatives.

-- 40 CFR 1502.14

Alternatives Screening Process

The alternative analysis should be able to give a clear indication of WHY the particular range of alternatives were developed, through what process, with what kind of public and agency input. Just as important is examining why alternatives have been eliminated from consideration during the NEPA process (through the use of what criteria, at what point in the process, and what parties were involved in establishing the criteria for assessing alternatives and measures of effectiveness).

In preparing NEPA documents, it is important to be candid about the rationale for generating, evaluating, and eliminating alternatives. Being as specific as possible is also essential -- if an alternative is eliminated from further consideration because it "does not meet the purpose and need," there should be adequate explanation of how or why it doesn't meet the purpose and need.

Range of Alternatives

In the draft EIS stage, all reasonable alternatives should be discussed at a comparable level of detail, and while the CEQ regulations encourage the identification of a preferred alternative (if there is one), FHWA discourages this. We stress that the NEPA process is about informed and open decisionmaking, and such things that might imply a bias towards any particular alternative should be avoided.

Although the "no-build alternative" (which might include short-term minor activities, like safety upgrading and maintenance projects) might not seem reasonable, it must always be included in the analysis. It can serve two purposes. First, it may be a reasonable alternative, especially for situations where the impacts are great and the need is relatively minor. More often, the no-build serves as a baseline against which the other alternatives can be compared.

Transportation System Management alternatives are often evaluated as potential design options to a proposal. This can include high-occupancy vehicle lanes, ridesharing, signal synchronization, and other actions. Also, where appropriate, mass transit options should be considered even when they are outside FHWA's funding authority.

Logical Termini and Segmentation

The FHWA regulations on evaluating environmental impacts (23 CFR 771.111(f)) require that:
In order to ensure meaningful evaluation of alternatives and to avoid commitments to transportation improvements before they are fully evaluated, the action evaluated in each environmental impact statement (EIS) or finding of no significant impact (FONSI) shall:

1. *Connect logical termini and be of sufficient length to address environmental matters on a broad scope;*
2. *Have independent utility or independent significance, i.e., be usable and be a reasonable expenditure even if no additional transportation improvements in the area are made; and*
3. *Not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.*

The development of a transportation project should take into consideration how the end points are determined, both for the improvement itself and for the scope of the environmental analysis. Whether the project has "logical termini" is a matter of both concerns. Logical termini for project development are defined as (1) rational end points for a transportation improvement, and (2) rational end points for a review of the environmental impacts.

In developing a project concept which can be advanced through the stages of planning, environment, design, and construction, the project sponsor needs to consider a "whole" or integrated project. This project should satisfy an identified need, such as safety, rehabilitation, economic development, or capacity improvements, and should be considered in the context of the local area socioeconomics and topography, the future travel demand, and other infrastructure improvements in the area. Without framing a project in this way, proposed improvements may miss the mark by only peripherally satisfying the need or by causing unexpected side effects which require additional corrective action. A problem of "segmentation" may also occur where a transportation need extends throughout an entire corridor but environmental issues and transportation need are inappropriately discussed for only a segment of the corridor.

An FHWA memo dated November 5, 1993 provides additional guidance on the Development of Logical Termini.

Other Requirements Involving Alternatives Analysis

(Source: FHWA Guidance on Purpose and Need Statements)

Beyond the CEQ regulations requirement of evaluating all, or a reasonable number representative of the full spectrum of reasonable alternatives, there are other more action-limiting requirements for alternatives under Section 4(f), the Executive Orders on Wetlands and Floodplains, and the Section 404(b)(1) guidelines. To address these requirements and conclusively demonstrate that some alternatives are not prudent or practicable, a well-justified purpose and need are vital.

The use of land from a Section 4(f) protected property (significant publicly owned public park, recreation area or wildlife and waterfowl refuge, or any significant historic site) may not be approved unless a determination is made that there is no feasible and prudent alternative to such use. There are numerous factors which could render an alternative "not prudent" because of unique problems, including cost and environmental impacts. If an alternative does not meet the project's purpose or satisfy the needs then the alternative is not prudent provided the purpose and need section can substantiate that unique problems will be caused by not building the project.

If a proposed action is to be located in a wetland or it entails a floodplain encroachment with significant impacts, a finding must be made that there is no practicable alternative to the wetland take or floodplain encroachment. Any alternative which does not meet the need for the project is not practicable. If the project's purpose and need are not adequately addressed, specifically delineated and properly justified, resource agencies, interest groups, the public or others will be able to generate one or possibly several alternatives which avoid or limit the impact and "appear" practicable. Sometimes long, drawn out negotiations or additional analyses are needed to clearly demonstrate that an alternative is not practicable, where a well-described justification of the project's purpose and need would have clearly established it.

If an alternative does not satisfy the purpose and need for the project, as a rule, it should not be included in the analysis as an apparent reasonable alternative. There are times when an alternative that is not reasonable is included based on the request of another agency or due to public expectation. In such cases, it should be clearly explained why the alternative is not reasonable (or prudent or practicable), why it is being analyzed in detail and that because it is not reasonable that it will not be selected.